

Remarks

Claims 1-17 were pending in the above-identified application when last examined. Claim 18 is canceled. Claims 19-21 are allowed Claims 1-17 are presented for reconsideration and allowance.

Claim Rejection under 35 U.S.C. § 103

Examiner rejected claims 1-18 under 35 U.S.C. 103(a) as being unpatentable over Doerr (U.S. Patent No. 6,956,987) in view of Volodin (U.S Patent No. 7,031,573). Applicant respectfully traverses this rejection.

Applicant respectfully asserts that the Examiner has failed to establish a *prima facie* case of obviousness because, among other reasons, there is no suggestion or motivation to combine the reference teachings as proposed by the Examiner. In the rejection, the Examiner asserts that all of the elements of applicants' claims can be found in the prior art references. This, however, is **not** the proper test for obviousness.

"It is insufficient to establish obviousness that the separate elements of the invention existed in the prior art, absent some teaching or suggestion, in the prior art, to combine the elements."

Arkie Lures, Inc. v. Gene Larew Tackle, Inc., 119 F.3d 953, 957, 43 USPQ2d 1294, 1297 (Fed. Cir. 1997).

The Examiner has provided no basis for a teaching or suggestion in the prior art for combining elements as proposed in the rejection. The Examiner's argument regarding obviousness is as follows:

One skilled in the art would have been motivated to employ a selectable grating based switching/routing sub-system as taught by Volodin since such switches have been found to provide optical transparency for a wide range of wavelengths, provide excellent longevity, outstanding thermal stability, good dynamic range, excellent optical quality, low cost, a variety of shapes and refractive index isotropy (column4, lines 59-67 of Volodin). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to employ a selectable grating based switching/routing sub-system as taught by Volodin in the device of Doerr.

(Office action, page 3)

The single sentence italicized above represents the Examiner's only explanation regarding a teaching or suggestion to combine. This sentence, however, is simply an *unsupported statement* made by the Examiner. In order to establish a *prima facie* case, a teaching or suggestion to combine must be found *in the prior art*. See, e.g., *Arkie Lures, Inc. v. Gene Larew Tackle, Inc.*, *supra*. Such an unsupported statement,

however, cannot constitute the evidence required to establish existence of a motivation or suggestion to combine:

Whether the Board relies on an express or an implicit showing [of a motivation, suggestion or teaching to modify the teachings of a reference], it must provide particular findings related thereto.... Broad conclusory statements standing alone are not "evidence".

In re Kotzab, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000) (citing *In re Dembiczak*, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999))

Accordingly, the Examiner's statement does not constitute a showing of a teaching or suggestion to combine. At the very least, an Examiner must prove that some motivation or suggestion to combine can be found in knowledge generally available to one of ordinary skill in the art. In the present case, however, the Examiner provides no evidence that the requisite knowledge is generally available but, instead, attempts to rely on his own personal opinion. Such personal opinion does not represent an adequate substitute for evidence.

In short, it appears that the Examiner's proposed combination of Doerr and Volodin is based solely on hindsight derived from appellants' specification. The use of hindsight in this manner is clearly prohibited by the relevant case law:

Obviousness can not be established by hindsight combination to produce the claimed invention. *In re Gorman*, 933 F.2d 982, 986, 18 USPQ2d 1885, 1888 (Fed. Cir. 1991). As discussed in *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1143, 227 USPQ 543, 551 (Fed. Cir. 1985), it is the prior art itself, and not the applicant's achievement, that must establish the obviousness of the combination.

In re Dance, 48 USPQ2d 1635, 1637 (Fed. Cir. 1998)

Obviousness may not be established using hindsight. See *W.L. Gore & Assocs., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1551, 220 USPQ 303, 312-13 (Fed. Cir. 1983).

For at least the above reasons, Applicant requests reconsideration and withdrawal of the rejection of claims 1, 5, and 11-14 under 35 U.S.C. § 103(a).

Dependent claims 2 and 3 further define patentably distinct claim 1. Therefore, dependent claims 2 and 3 are also believed to be allowable. For at least this reason, Applicant requests reconsideration and withdrawal of the rejection of claim 2 and 3 under 35 U.S.C. § 103(a).

Dependent claims 7, 8, and 15 further define patentably distinct claim 5. Therefore, dependent claims 7, 8, and 15 are also believed to be allowable. For at least this reason, Applicant requests reconsideration and withdrawal of the rejection of claims 7, 8, and 15 under 35 U.S.C. § 103(a).

Regarding claim 4, the Examiner states, "... the combination of Doerr and Volodin teaches that the grating based switching/routing sub-system comprises a volume holographic grating based switching/routing sub-system (reference numeral 1020 in Figure 10)." (Office Action, page 4)

Appellants respectfully assert that the Examiner has failed to establish a *prima facie* case of obviousness because, among other reasons, there is no suggestion or motivation to combine the reference teachings as proposed by the Examiner.

The Examiner has provided no basis for a teaching or suggestion in the prior art for combining elements as proposed in the rejection. For at least the above reason, Applicants request reconsideration and withdrawal of the rejection of claim 4 under 35 U.S.C. § 103(a).

Regarding claim 6, the Examiner states, "... the combination of Doerr and Volodin teaches that the selectable switching/routing sub-system includes at least one pixellated switchable component (reference numeral 850 if Figure 8 of Doerr; reference numeral 1020 in Figure 10 of Volodin)." (Office Action, page 4)

Appellants respectfully assert that the Examiner has failed to establish a *prima facie* case of obviousness because, among other reasons, there is no suggestion or motivation to combine the reference teachings as proposed by the Examiner.

The Examiner has provided no basis for a teaching or suggestion in the prior art for combining elements as proposed in the rejection. For at least the above reason,

Applicants request reconsideration and withdrawal of the rejection of claim 6 under 35 U.S.C. § 103(a).

Examiner rejected Claim 9 under 35 U.S.C. 103(a) as being unpatentable over Doerr in view of Volodin. Applicant respectfully traverse this rejection.

Applicant respectfully asserts that the Examiner has failed to establish a *prima facie* case of obviousness because, among other reasons, there is no suggestion or motivation to combine the reference teachings as proposed by the Examiner.

The Examiner has provided no basis for a teaching or suggestion in the prior art for combining elements as proposed in the rejection. The Examiner's argument regarding obviousness is as follows:

One skilled in the art would have been motivated to employ volume holographic gratings as the combining and separating gratings of the system... Therefore, it would have been obvious to one skilled in the art at the time the invention was made to employ volume holographic gratings as combining and seapratig gratings in the system of the combination of references.

(Office action, page 4)

The single sentence italicized above represents the Examiner's only explanation regarding a teaching or suggestion to combine. This sentence, however, is simply an *unsupported statement* made by the Examiner.

For at least the above reasons, Applicants request reconsideration and withdrawal of the rejection of claim 9 under 35 U.S.C. § 103(a).

Dependent claims 10 and 16 further define patentably distinct claim 5. Therefore, dependent claims 10 and 16 are also believed to be allowable. For at least this reason, Applicant requests reconsideration and withdrawal of the rejection of claims 10 and 16 under 35 U.S.C. § 103(a).

Regarding claim 17, the Examiner states, "... the combination of Doerr and Volodin teaches anamorphic optics for circularizing the waveguide outputs of the separating AWG (reference numeral 830-2 in Figure 8 of Doerr; reference numeral 1011-1014 in Figure 10 of Volodin)." (Office Action, page 5)

Appellants respectfully assert that the Examiner has failed to establish a *prima facie* case of obviousness because, among other reasons, there is no suggestion or motivation to combine the reference teachings as proposed by the Examiner.

The Examiner has provided no basis for a teaching or suggestion in the prior art for combining elements as proposed in the rejection. For at least the above reason, Applicants request reconsideration and withdrawal of the rejection of claim 17 under 35 U.S.C. § 103(a).

The rejection of claim 18 is rendered moot since claim 18 is canceled.

Conclusion

Applicants respectfully submit that Applicant's pending claims are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby requested.

Respectfully submitted,

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/John Pessetto/

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